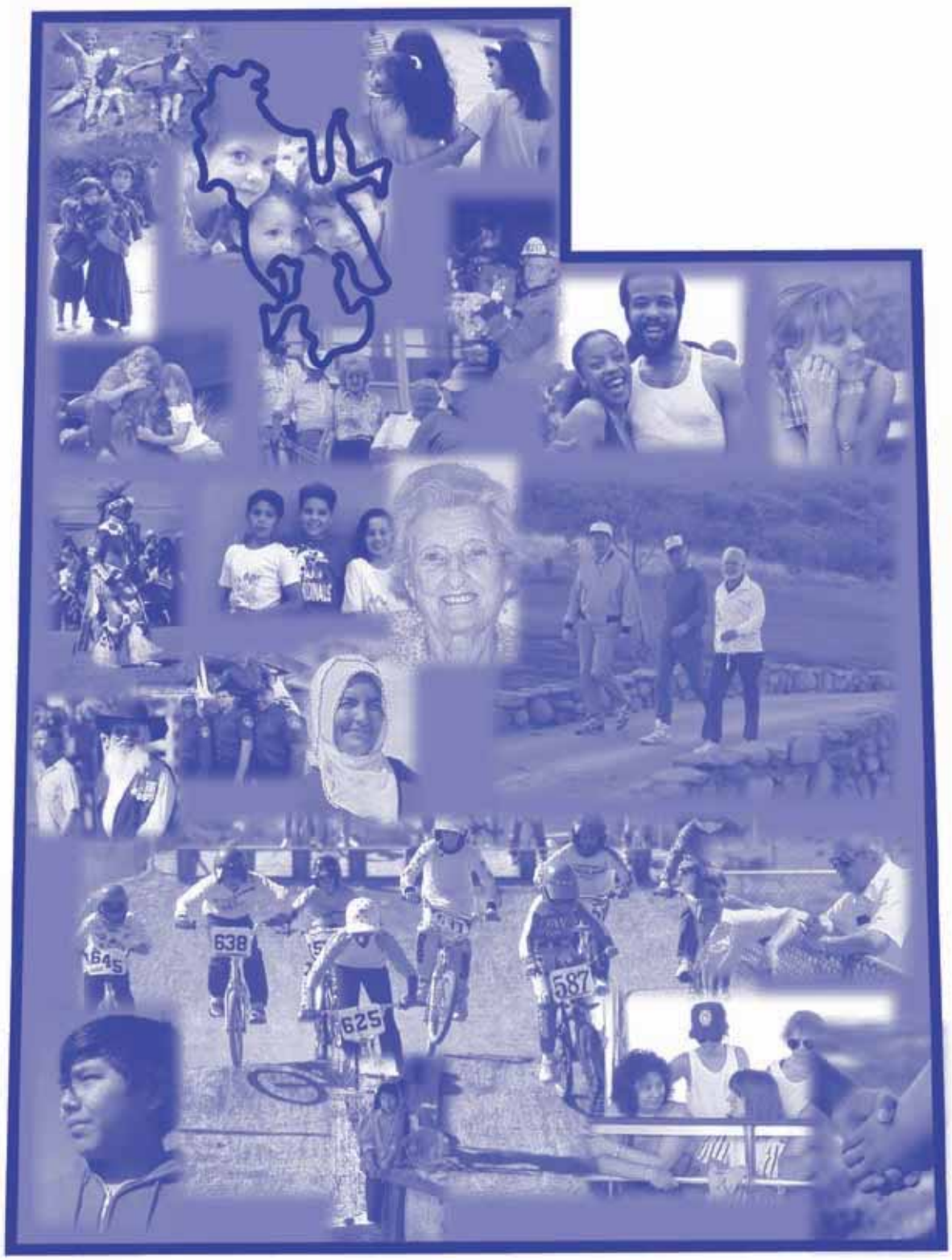
Utah's Asthma Plan



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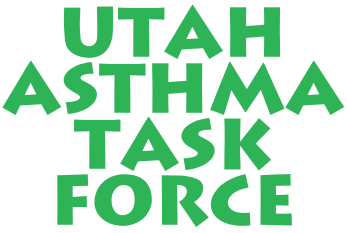

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STATE OF UTAH

OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114-0601

MICHAEL O. LEAVITT
GOVERNOR

OLENE S. WALKER
LIEUTENANT GOVERNOR

August 2003

It is my pleasure to support the Utah Asthma Task Force in presenting the Utah Asthma Plan to the citizens of Utah. This plan has been developed by many experts in asthma care, dedicated community organizations, and people with asthma. It represents their vision, "*Utah communities working together to improve the quality of life for people with chronic asthma symptoms*."

Asthma places a heavy burden on those with the disease, as well as those around them. Utah's Asthma Plan represents a coordinated call to action that will challenge us to work as community partners toward a common cause. By striving to achieve the objectives and strategies, we hope to reduce the public health burden caused by asthma.

Through cooperation and collaboration across the broad spectrum of community organizations and individuals, we can positively impact the lives of many people throughout the state. I would like to thank those who invested their time to determine strategies and present this plan. I also want to acknowledge those who will be involved in the future as we work to put the strategies into action. Thank you.

Sincerely,

Michael O. Leavitt
Governor

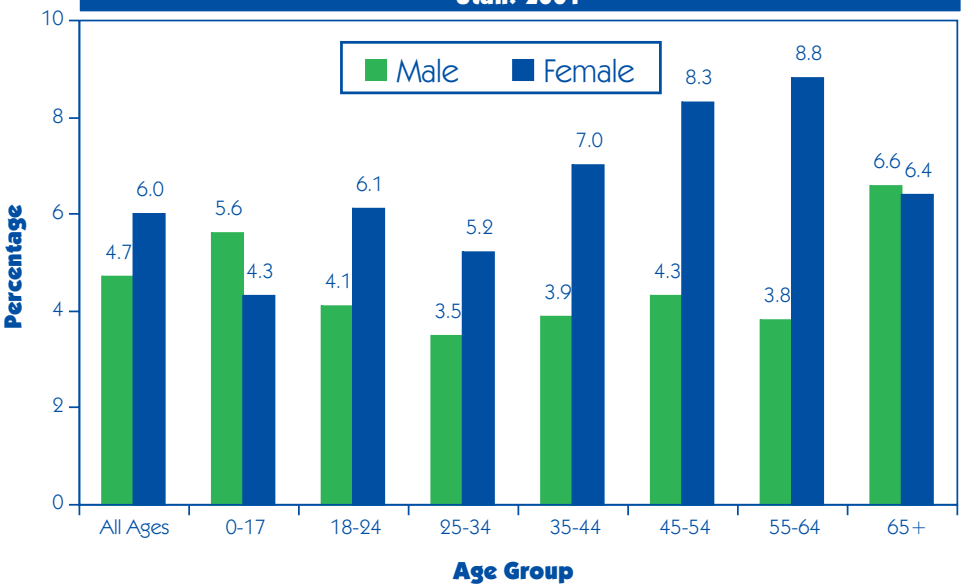
1 Asthma

"Asthma is one of the ten leading chronic conditions that restrict activity."

Asthma is a chronic lung disease caused by airway inflammation that causes reversible airflow obstruction. Asthma is one of the ten leading chronic conditions that restrict activity. Approximately 15 million people in the United States have asthma, including some 5 million children. Asthma is a leading cause of missed school days within the United States. Each year more than 10 million school days are missed and more than 5,000 persons die because of asthma. It is estimated that more than $6 billion is spent on asthma care each year.

In 2001, about 5% of Utahns were under medical care for asthma (Utah Health Status Survey, 2001). It is estimated that about 118,400 Utahns have asthma, which includes 36,000 children under age 18. Some 1,400 persons were hospitalized because of asthma during 2001, with a cost of $7.8 million.

Figure 1: Prevalence of Asthma by Age and Sex, Utah: 2001

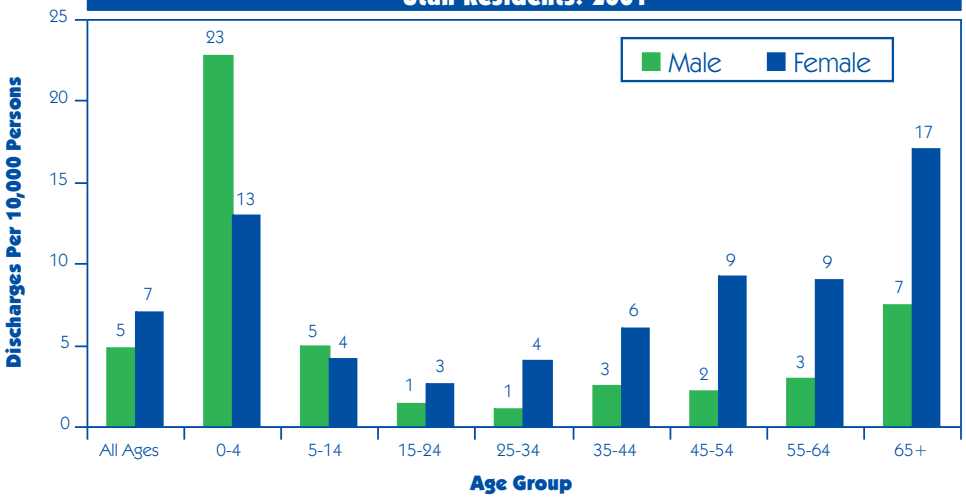


** Data Source: 2001 Utah Health Status Survey, Utah Department of Health*

- Women are more likely to have asthma (6.0%) than men (4.7%).
- For men, the asthma prevalence rate increases as they get older; whereas for women, the asthma rate peaks at 55-64 years and decreases for those aged 65 and over.

1 Asthma

Figure 2: Rate of Hospital Discharges for Asthma by Age Group and Sex, Utah Residents: 2001



** Data Source: 2001 Utah Hospital Discharge Database, Utah Department of Health*

- Asthma hospitalizations occur most frequently among male children under age 5 and among elderly females aged 65 and over.

A complete data report will be issued in November, 2003. It will include the most recent data available.

"Utahns spent over $7.8 million for asthma hospitalizations in 2001."

Plan Development

"Utah communities work together to improve the quality of life for people with chronic asthma symptoms."

Utah Asthma Program

Recognizing the growing burden of asthma on Utah citizens, the Utah Department of Health applied for funding from the Centers for Disease Control and Prevention. The cooperative funding program was designed to allow states to develop capacity to address asthma from a public health perspective. Utah received funding in late 2001 and created the Utah Asthma Program.

The goals of the Utah Asthma Program are:

- Enhance infrastructure to address asthma from a public health perspective.
- Create a public health surveillance system for asthma.
- Build partnerships and improve partner capacity.
- Develop population-based strategies to improve asthma care and management.

Utah Asthma Program Staff

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Secretaries

Utah's Asthma Plan Development Process

In February, 2002, invitations to join the Asthma Task Force were mailed to many professionals working with asthma issues in organizations around the state. The first meeting of the Task Force was held in March, 2002 with over 50 in attendance. During the first meeting, five workgroups (**Education, Health Systems, Patient Issues, Risk Factors,** and **Data and Monitoring**) were formed to develop mission statements, specific objectives, and strategies.

The following **vision statement** was created by the Task Force:

Utah communities work together to improve the quality of life for people with chronic asthma symptoms by increasing awareness, access, and education.

The five workgroups met monthly to develop each section of the plan. The Task Force met quarterly to review the ongoing process of Utah's Asthma Plan development.

The remainder of this document describes the vision of these partners for a public health response to asthma in Utah.

Plan Development

Next Steps

We have identified two crucial next steps in moving the plan forward:

1) Present the plan to policy and decision-makers for expansion of partners that are committed to assisting with implementation. In order for these partners to gain an understanding of the plan, a statewide summit will be held. The Task Force will also contact various organizations to explain and promote the plan and provide opportunities for collaboration.

2) Identify resources to implement the plan. The Centers for Disease Control and Prevention is committed to assist states with partial funding for projects identified in state plans; however, additional funding will be necessary to continue efforts to decrease the burden of asthma in Utah.

Focus Groups

As part of the planning process, the Asthma Program conducted several focus groups in 2002 and 2003. These groups help paint a portrait of the daily issues faced by people with asthma, school systems caring for children with asthma, and health care providers who diagnose and treat asthma patients. The words that follow reflect some personal views of problems they encounter in dealing with asthma on a daily basis.

"My parents didn't want me to take an inhaler and get addicted to medicine."

–Child with asthma

"Asthma is the one area that I feel least equipped to handle [as a school secretary]...I'm the nurse by default and if I don't know how to treat it, I better figure something out real quick."

–School secretary

"When the parents are struggling for basic needs to be met like food and shelter, refilling the inhaler prescription is lower on the list of things to do."

–Teacher

"As teachers, we are rarely notified that a child has asthma. We are the last to know and we spend most of the day with the children."

–Teacher

"Asthma is something that we live with daily. It is very scary with no boundaries. It knows no class, race, or religion. It rears its ugly head like a nasty dragon coming out of its lair."

–Parent of children with Asthma

Plan Development

Utah Asthma Task Force Partnership Organizations

Local Health Departments
- Davis County
- Utah County
- Wasatch City/County
- Weber-Morgan

Hospitals
- LDS Hospital
- Primary Children's Medical Center
- St. Mark's Hospital
- University of Utah Medical Center

Health Plans
- Altius
- Deseret Mutual Benefit Administrators
- Intermountain Health Care
- Public Employees Health Plans
- Regence Blue Cross/Blue Shield
- United Health Care

Additional Organizations
- American Lung Association
- Utah Association of Community Health Centers
- Health Insight
- Intermountain Pediatric Society
- Pacific Islander Health Network
- Salt Lake Community Action Program/Head Start
- Utah School Nurses Association

State Agencies
- Utah Department of Health
  - Asthma Program
  - Center for Health Data
  - Health Care Finance
  - Maternal and Child Health
  - Tobacco Prevention and Control
- Utah Department of Environmental Quality

Universities/Schools
- Brigham Young University
- Granite School District
- Murray School District
- University of Utah

Workgroup Chairs

Education
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3 Education

Background

Education is the cornerstone of asthma management. Through increased awareness of the complications, symptoms, triggers, and risk factors of asthma, one can begin to understand its impact. Many people think nothing can be done to treat asthma, however, there are many effective treatments. Unfortunately, most individuals and many of their physicians are unaware of the current resources that are available for asthma management. Patients, providers, and the public must work together to promote 'asthma-friendly' communities.

Mission

Promote unified, accurate, consistent, and appropriate asthma education materials and messages that are delivered to patients, providers, and the public.

Patient

Objective 1: ***Increase accurate knowledge, skills, and follow-up for all people with asthma.***

Strategies

1. Promote consistent use of care plans (action plans) in all schools statewide.
2. Support the American Lung Association program "Open Airways" in schools and increase the number of classes held.
3. Advocate for school policies that allow students to carry inhalers.
4. Promote and offer assistance for American Lung Association of Utah asthma camps for children.
5. Assist with national and state efforts to promote the use of asthma educators in health care offices.
6. Coordinate with Area Agencies on Aging to outreach to seniors regarding asthma management and resources.

Desired Outcomes

- Increased self-management of asthma.
- Increased quality of life for asthma patients.

Objective 2: ***Identify and provide patients with resources for asthma management and education.***

Strategies

1. Provide asthma treatment information sheets which include website and contact information for local asthma programs to be given to patients at pharmacies.
2. Develop and distribute a resource guide of asthma programs and resources.
3. Develop and maintain a listserv for information and resources.
4. Work with health plans to disperse resources.
5. Develop brochures to be used in public/private providers' offices, community health centers, pharmacies, and other appropriate health care settings.

Desired Outcomes

- Increased availability of asthma resources.
- Increased use and awareness of asthma resources.
- Coordination of educational materials that are disseminated statewide.

> *"Patients, providers, and the public must work together to promote 'asthma-friendly' communities."*

3 Education

"Support 'Open Airways' in schools."

Provider

Objective 3: ***Increase provider awareness of resources available for asthma management and education.***

Strategies

1. Develop and maintain a listserv to share information, ideas, and resources.
2. Implement an asthma hotline for providers, patients, and the public.
3. Work with health plans to provide resource kits to be distributed through providers to asthma patients.
4. Coordinate asthma education activities and information among health insurance groups.
5. Provide funding to local health departments and other agencies to disseminate current asthma information.

Desired Outcomes

- Increased use of resources by patients.
- Local health departments will distribute current information on asthma to local providers.

Objective 4: ***Create educational opportunities for providers regarding the treatment, management, and education of asthma patients.***

Strategies

1. Provide educational materials, workshops, and teleconferences at regional locations as continuing medical education opportunities for health care professionals.
2. Provide patients with information, through the use of health maintenance organization and insurance newsletters, to facilitate discussion with their providers.

Desired Outcomes

- Increased educational opportunities for providers.
- Dissemination of educational materials to asthma patients.

Public

Objective 5: ***Increase public awareness of asthma as a public health problem.***

Strategies

1. Launch a public awareness campaign to disperse information about asthma.
2. Provide informational handouts, brochures, and asthma fact sheets in local libraries, malls, pharmacies, and health care waiting rooms.
3. Promote asthma awareness through a statewide spokesperson.
4. Include asthma screening with other health screenings that occur at workplace screening events.
5. Educate local community leaders and policymakers regarding asthma issues and their impact on constituents.

Desired Outcome

- Increased public awareness of the complications, symptoms, triggers, and risk factors of asthma.

3 Health Systems

Background

Asthma patients must have access to appropriate primary and specialty asthma care, education services, and necessary medications and devices in order to manage asthma more effectively. Unfortunately, many asthma patients not only lack access to basic services, but they also require coordination among providers in the health care system.

Mission

Promote a health care system that provides access to high quality care for all Utahns with asthma.

Health Care Delivery Systems

Objective 1: *Explore access to health care and identify barriers to care for patients with asthma.*

Strategies

1. Review current systems, including health maintenance organizations, Medicare, Medicaid, Children's Health Insurance Program, Primary Care Network, and community health centers, to identify barriers to care.
2. Survey providers to identify how to improve care for patients with asthma.
3. Develop systems to increase collaboration among health care professionals to improve access and care for asthma patients.
4. Identify, review, and promote existing models for implementing cross-system collaborative approaches to asthma care, including pharmacies, primary care providers, asthma specialists, school systems, emergency departments, and hospitals.
5. Identify uninsured and underserved asthma patients; determine how they pay for care, if they go without care, and explore opportunities to create or enhance their care.
6. Coordinate with pharmacies to check medication refill rates for medication compliance.

Desired Outcomes

- Increased access to care for underserved and uninsured asthma patients.
- Decreased barriers for persons with asthma who need care.
- Better continuity of care for asthma patients.

Professional Education and Development

Objective 2: *Support innovative approaches to providing professional development opportunities.*

Strategies

1. Promote interaction among health care providers through multiple channels, such as websites or weekly meetings, to discuss health care issues for asthma patients.
2. Offer continuing medical education credits for asthma education activities. (See education objective #3.)

> *"Develop systems to increase collaboration to improve access."*

3 Health Systems

"Educate payers and providers on the need for comprehensive asthma benefits."

Desired Outcomes

- Increased availability of resources and educational materials for providers.
- Increased communication among appropriate medical community regarding asthma patients.

Benefit Design

Objective 3: *Support development of model health care benefit packages for essential asthma services.*

Strategies

1. Identify available asthma services through a survey of Utah health insurance payers.
2. Develop economic models to demonstrate a cost-benefit analysis of inclusive asthma benefit packages.
3. Survey health care professionals to determine benefits that should be included in a health plan.
4. Educate payers and providers on the need for comprehensive asthma benefits.
5. Provide access to the benefit package through state health insurance plans (Medicaid, Children's Health Insurance Program, Primary Care Network, etc.).

Desired Outcomes

- Improved benefit packages for asthma patients.
- Access to all levels of services for asthma patients.
- Promotion of care for asthma patients.

Resources

Objective 4: *Promote available resources to encourage the underinsured or uninsured to seek care for their asthma.*

Strategies

1. Educate health care purchasers about asthma benefits.
2. Promote available resources as a part of the public awareness campaign.

Desired Outcome

- Increased number of asthma patients that receive care.

3 Patient Issues

Background

Asthma patients that are able to effectively manage their asthma experience a better quality of life. There are many barriers that hinder patients from becoming experts in their own care; however, with appropriate resources and training, asthma patients can overcome these barriers. Patients must first be aware of and have access to resources that will help them learn to manage their asthma. Patients should develop, with the help of their provider, an asthma management plan for home, work, or school. Health care providers play a key role in helping patients manage their asthma, providing educational materials and support, and monitoring and evaluating the asthma action plan.

Asthma patients who learn to effectively control their asthma will not only experience a better quality of life, but should also see a decrease in missed days of work or school, a reduction in the number and severity of attacks, and a decreased number of hospital visits. Utah's Asthma Plan seeks to remove barriers and help patients become experts in their own care.

Mission

Provide the tools and resources necessary to maximize and promote wellness and to improve quality of life for people with chronic asthma symptoms.

Objective 1: ***Assist patients with asthma management so they will be able to function as normally as possible in all domains of their life.***

Strategies

1. Identify specific ways to measure the best outcomes for asthma patients.
2. Provide easily accessible and traceable routine pulmonary function testing.
3. Identify factors that may interfere with treatment and/or the patients' quality of life.
4. Improve provider awareness of and ability to identify the occupational, educational, and psychosocial factors affecting asthma management.
5. Provide accessible and usable methods for assessing current knowledge and gaps in knowledge of asthma management by both patients and medical providers.

Desired Outcomes

- Measurable optimal functioning of asthma patients.
- Improved awareness by medical providers of their patients' skills and needs.
- Improved provider awareness of factors that could interfere with outcomes or could occur as side effects of treatment.

Objective 2: ***Assist patients in the transfer of knowledge about asthma and its treatment into actual performance of management behaviors.***

Strategies

1. Provide effective self-management programs to patients who are identified by their practitioners as having potential problems in

> *"Asthma patients that learn to effectively control their asthma will experience a better quality of life."*

3 Patient Issues

"Provide schools with funding and structure to adopt coordinated health curricula."

performance of skills, self-efficacy, or management over time.
2. Provide schools with funding and structure to adopt coordinated health curricula for asthma management away from home.
3. Provide methods and guidelines to help physician offices adopt long-term follow-up regimens within their practices to facilitate the frequency and consistency of communications with the family.

Desired Outcomes

- Improved patient self-efficacy.
- Improved patient performance of asthma care skills over time.
- Improved consistency of follow-up and increased frequency of patient-practitioner communication.

Objective 3: ***Assist patients in improving motivation for asthma care.***

Strategies

1. Provide practitioners in urgent care centers with resources for transitioning patients to primary care services.
2. Contract with various health plans to set up a system that is triggered when a patient has too many hospital or emergency department visits, too frequent prescriptions refills, etc., and refer them to self-management programs.
3. Use home health care systems, mobile asthma care units, or the medical home project to improve monitoring (in home, if necessary) and to ensure the continuity of care and follow-up for identified patients with difficult-to-manage asthma.
4. Analyze the utility of having mobile asthma care units, especially in rural and poorly serviced areas.
5. Provide a web-based system of monitoring and communication for practitioners and patients to use cooperatively.

Desired Outcomes

- Reduced burden of asthma care on urgent and emergency services.
- Improved continuity of care for patients previously without primary care providers.
- Improved accountability of patients to seek out consistent well-followed care.
- Improved frequency and quality of patient monitoring of asthma.

Objective 4: ***Develop a guide to available resources for patients with complex or difficult-to-manage asthma, including adjunctive services from practitioners sensitive to the issues faced by asthma patients.***

Strategies

1. Use the Utah Department of Health to develop both a printed and a web-based version of a resource guide that includes the following information:
   - educational resources, occupational resources, asthma education, working within a school system on a patient's behalf, accessing

3 Patient Issues

counseling and evaluation services for learning and/or cognitive problems, financial resources and other resources within insurance provider organizations, mental health, medical services, medical care, and community support.

2. Develop and implement a general information campaign to make community agencies and individuals aware of the resource guide.

Desired Outcomes

- Improved patient and practitioner knowledge of direct and indirect services available to patients with asthma.
- Improved asthma patients' access to services for all aspects of their care and well-being.

Objective 5: ***Assure that state laws and policies reflect current care practice guidelines and support the need for good asthma care.***

Strategies

1. Develop standardized forms that are consistent with state policy on medications in school to provide to school personnel and parents.
2. Educate medical personnel on options available for advocating good asthma care in the schools.
3. Advocate at the state level to increase the proportion of medical professionals per pupil in the schools.

Desired Outcomes

- Increased awareness of laws and policies currently in place that impact care of asthma, especially for children in school.
- Improved advocacy and care for families that is consistent with current policies, as well as with treatment goals.

"Assure that state laws and policies reflect current care practice guidelines."

3 Risk Factors

"Dampness in buildings appears to increase the risk for asthma."

Mission

Identify Utah-specific risk factors for asthma and facilitate implementation of effective strategies to reduce those risks.

Environmental Risk Factors

Background

Asthma prevalence continues to increase throughout the world, with asthma mortality also increasing in those countries where prevalence is rising. While asthma is recognized as having multiple causes, allergic asthma and its associated environmental factors appear to be most significant in regard to the global epidemic. Utah, with its diverse ethnicity, high population of children, variety of housing, and unique mixture of mountain valley, desert climate, industry, and agriculture, provides a significant challenge toward slowing the trend for increasing asthma morbidity and mortality. Efforts towards prevention and control of environmental risk factors for asthma must focus on reducing indoor and outdoor pollutant exposures for people with asthma, as well as for those at increased risk for developing asthma, such as children with clinical allergies.

Indoor Environmental Risk Factors:

Recent assessment of asthma causation has focused on the basis of allergic inflammation and exposure to inhaled triggers. This suggests that prevention and control must focus on home and building hygiene. Available data have shown that dampness in buildings appears to increase the risk for asthma and a number of related health effects such as coughing, wheezing, airway infections, and tiredness. The recognition, remediation, prevention, and control of dampness indoors is essential in reducing the risk of asthma.

Another area that must be considered is that of infectious respiratory disease agents as they contribute to the overall risk of asthma disease outcomes from indoor exposures. These agents may have some role in the observed increase in asthma incidence and mortality. Environments with large groups of susceptible individuals, such as children in day care, must focus on indoor environmental hygiene to reduce the risk of infectious respiratory diseases.

Objective 1: ***Seek to reduce Utah-specific risk factors through community cooperation in promoting risk factor awareness and reducing those risks.***

Strategies

1. Promote awareness regarding hygiene practices to reduce the risk of asthma.
2. Train local health departments to assist and advise their communities on home hygiene practices. Promote this training through representatives of local ethnic communities throughout the state, possibly in conjunction with English as a Second Language (ESL) and literacy classes.
3. Promote awareness regarding water damage and restoration, emphasizing the importance of rapid attention to catastrophic conditions such as flooding and sewage backflows, as well as

3 Risk Factors

more common conditions such as plumbing leaks.

4. Support programs within air-conditioner, humidifier, and swamp cooler manufacturers to develop consumer education care and maintenance materials for the prevention of moisture-associated pollution in relation to these devices.
5. Utilize schools to promote training programs such as "Tools for Schools" for maintenance and cleaning issues to improve indoor air quality in schools.
6. Advocate for appropriate indoor environmental air quality and sanitation regulations in order to minimize the transmission of infectious respiratory disease agents associated with the exacerbation and/or development of asthma.

Desired Outcomes

- Increased awareness of home hygiene practices to reduce the risk of asthma.
- Increased assistance by local health departments to communities in the implementation of home hygiene practices.
- Increased awareness of the effects of water damage, flooding, sewage backups, and plumbing leaks in relation to asthma.
- Improved indoor air quality in Utah institutions, including public buildings, schools, and day care centers.

Outdoor Environmental Risk Factors:

Studies have shown that a dry, desert climate can contribute to increased asthma and allergy morbidity due to low relative humidity and rainfall resulting in high concentrations of particulate dusts, some of which function as major allergens. Natural and man-made environmental factors, such as nitrogen dioxide, sulfur dioxide, particulate matter, and ozone also play an important role in asthma.

Objective 2: ***Identify Utah-specific risk factors and reduce those risks.***

Strategies

1. Identify geographical areas within the state that are at elevated risk for asthma and associated allergic respiratory diseases due to air emissions, meteorological inversions, and other conditions.
2. Promote asthma awareness and methods of minimizing exposures to outdoor pollutants in the aforementioned communities.

Desired Outcomes

- Decreased air emissions and outdoor pollutants.
- Increased asthma awareness statewide.

> *"Advocate for appropriate indoor environmental air quality and sanitation regulations."*

3 Risk Factors

"Distribute educational materials to employees through worksite programs."

Occupational Risk Factors

Background

There are currently more than 250 recognized agents that induce occupational asthma. Individuals with pre-existing asthma may experience exacerbation following exercise, exposure to cold, or exposure to low levels of irritant fumes or dusts that are not generally accepted as a cause of occupational asthma. Usually, occupational asthma begins from 18 months to five years after exposure to the irritant. This makes prevention of exposure to irritants essential in reducing the incidence of occupational asthma. The following objectives and strategies are designed to help Utahns reduce the number of cases of occupational asthma.

Objective 3: ***Assure that occupational health nurses and safety professionals are aware of the agents that are known sensitizers or irritants, those which may become irritants and those which may induce asthma relative to their particular industry.***

Strategies

1. Educate professionals regarding Occupational Safety and Health Administration (OSHA) standards and implementation.
2. Distribute educational materials to employees through worksite programs.
3. Provide industries with updated information on possible new toxins.
4. Train safety and occupational professionals in conducting safety and hazard surveillance walk-through evaluations of the workplace.

Desired Outcomes

- Increased awareness of asthma-specific irritants.
- Increased use of Material Safety Data Sheets in the workplace.
- Creation of a systematic approach to keeping professionals current on the latest research.
- Education of occupational and safety personnel in basic surveillance methodology.

Objective 4: ***Assist occupational health nurses and safety professionals in the workplace with information or resources that will assist them in developing their industry-specific surveillance and monitoring.***

Strategies

1. Promote creation of worksite protocols for reporting early signs and symptoms of sensitization.
2. Encourage a non-threatening workplace climate for reporting of such incidents.
3. Create workplace databases in which incidents are reported and analyzed.
4. Educate industries in available computer technology which will expedite simple data collection and analysis for early detection of exposure and increased ability to solve the problem internally.
5. Provide education and training to assist industry safety and health professionals in recognizing when an issue warrants evaluation by an independent consultant.

3 Risk Factors

Desired Outcomes

- Increased employee reports that are compiled and analyzed to include sign and symptom information, worksite where exposure occurred, and potential new irritants or exposure issues.
- Increased number of employees that receive early treatment.
- Increased number of geographical areas that are evaluated for control measures.
- Increased differentiation by safety and health professionals of issues which are easily manageable and those that are too complex to understand and manage without consultant assistance.

Objective 5: ***Develop recommendations for industries so they can formulate worksite management plans to minimize exposure through known controls and address the management of sensitized employees.***

Strategies

1. Encourage employers to conduct a pre-screening at the start of employment and follow-up screenings at regular intervals when the employee's position includes potential exposure to chemicals or irritants; encourage employees to obtain preventive vaccinations such as the influenza vaccine and pneumovax.
2. Promote policies that protect employees who have been exposed to irritants by implementing feasible engineering controls or transferring the employees to other locations.
3. Encourage development of worksite disease management programs, to include asthma management techniques, proper medication for asthmatics, and preventive methods and actions to be implemented at the time of exposure to a known irritant.
4. Promote use of appropriate ventilation techniques as outlined by the Occupational Safety and Health Administration (OSHA) and the substitution of potentially hazardous materials where possible.
5. Educate employees in early recognition of workplace hazards, provide training to ensure appropriate use of personal protective equipment, have a plan of action in the event of an exposure, and encourage employee responsibility for safety.

Desired Outcomes

- Creation of safe workplace climates for all Utahns.
- Development of worksite asthma management programs to prevent and control exposure to irritants.
- Increased number of employees that obtain preventive vaccinations.

Genetic Risk Factors

Background

Asthma risk associated with family history might represent a useful predictor in some preventive health efforts. There are currently many unknowns in this

"Encourage development of worksite disease management programs to include asthma management techniques."

3 Risk Factors

"Explore opportunities to evaluate genetics as a predictor of asthma risk."

field, which presents Utah with an opportunity to pioneer efforts in determining the relationship, if any, between genetics and asthma. Knowledge of asthma risk might be useful in motivating behavioral efforts on the part of parents of children at risk for developing asthma. This same knowledge might also help health care providers and parents to identify early signs of asthma and to be more proactive about treatment and remediation of non-genetic risk factors. This area of research is critical in determining possible prevention and treatment regimens for persons with asthma.

Objective 6: ***Explore opportunities to evaluate genetics as a predictor of asthma risk.***

Strategies

1. Partner with other agencies or interdepartmental programs to explore family history of asthma patients to determine if there is any significant link between this history and asthma.
2. Implement genetic data gathering in pilot groups of asthma patients.

Desired Outcomes

- Increased awareness of possible genetic link to asthma patients.
- Increased early detection of asthma in at-risk populations.

3 Data and Monitoring

Background

The burden of asthma in Utah is significant. To be able to determine if the state plan is efficient in reducing this burden, the morbidity, mortality, and impact of the disease must be assessed. The data that are gathered will not only direct the plan, but will determine how close the plan is to achieving its goals.

Mission

Assure availability of high quality data to guide interventions that prevent asthma and improve the quality of life for people with asthma.

Objective 1: *Identify data needs.*

Strategies

1. Develop a list of information needs from existing sources.
2. Identify primary users of information.
3. Conduct a needs assessment of primary information users.
4. Prioritize information needs.
5. Evaluate the needed information list and the needs assessment tool in cooperation with the Utah Asthma Task Force and primary information users.

Desired Outcomes

- Establishment of a data system sufficient for the Asthma Program's needs.
- Creation of a summary report of data needs assessment results.

Objective 2: *Assess and improve the quality of existing data sources.*

Strategies

1. Assess quality of hospital, emergency department, and Medicaid utilization data.
2. Assess quality of asthma survey data.
3. Assess quality of death certificate data.
4. Assess quality of health maintenance organization performance measures on asthma.

Desired Outcomes

- Ability to make recommendations to data providers for data quality improvement.
- Evaluation of the quality of each data source in a summary report.

Objective 3: *Develop new data sources to fill gaps as they are identified.*

Strategies

1. Develop a list of information needs as they become known that are not covered by existing data sources.
2. Develop a pilot project to assess the feasibility of using previously unused data sources for asthma surveillance, such as health maintenance organization data and clinic data.
3. Explore opportunities to add an asthma component to existing data collection systems.
4. Develop a pilot project to create new data collection systems to fill gaps: i.e., school-based or

> *"Assess and improve quality of existing data sources."*

3 Data and Monitoring

"Evaluate the implementation of Utah's Asthma Plan."

occupational/environmental data system.
5. Evaluate the efficiency and expandability of pilot projects in cooperation with the Utah Asthma Task Force.

Desired Outcomes

- Addition of asthma module to data collection systems.
- Analyses of data from pilot projects to determine if they can be implemented on a larger scale.

Objective 4: ***Produce and disseminate information from surveillance data.***

Strategies

1. Define a set of core tracking measures in cooperation with the Center for Health Data.
2. Identify the target audience for report dissemination.
3. Produce the "Asthma in Utah" report.

Desired Outcomes

- Development of a timeline for dissemination of information.
- Evaluation of the usefulness of the report.

Objective 5: ***Develop infrastructure to support surveillance needs.***

Strategies

1. Assure sufficient epidemiological/statistical/information technology capacity to collect, evaluate, analyze, and interpret data.
2. Assure capacity for the production and dissemination of surveillance reports.
3. Assure ongoing input from the surveillance workgroup and the Utah Asthma Task Force.

Desired Outcome

- Comprehensive infrastructure and sufficient support system for compilation and dissemination of data in a timely manner.

Objective 6: ***Evaluate the implementation of Utah's Asthma Plan.***

Strategies

1. Identify high priority objectives of each workgroup.
2. Identify measurement strategies, including measurable data, for individual objectives.
3. Communicate back to individual workgroups on objectives that are not measurable.
4. Develop timeline, budget, and resources needed for plan evaluation.
5. Perform evaluation and report results to the Utah Asthma Task Force.
6. Use results of evaluation for continuous quality improvement.

Desired Outcomes

- Effectiveness of the plan is demonstrated.
- Program planning is driven by the data.
- Timely implementation of state plan objectives.
- Corrective action is implemented as necessary to adjust the plan.

Appendix A

Utah Asthma Task Force Participants

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Appendix B

Healthy People 2010–Asthma Objectives

Goal: Promote respiratory health through better prevention, detection, treatment, and education efforts.

Objective Number	Objective Short Title
24-1	Deaths from asthma *Reduce asthma deaths.*
24-2	Hospitalizations for asthma *Reduce hospitalizations for asthma.*
24-3	Hospital emergency department visits for asthma *Reduce hospital emergency department visits for asthma.*
24-4	Activity limitations *Reduce activity limitations among persons with asthma.*
24-5	School or work days lost *(Developmental) Reduce the number of school or work days missed by persons with asthma due to asthma.*
24-6	Patient education *Increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition.*
24-7	Appropriate asthma care *(Developmental) Increase the proportion of persons with asthma who receive appropriate asthma care according to the NAEPP Guidelines.*
24-8	Surveillance systems *(Developmental) Establish in at least 25 states a surveillance system for tracking asthma death, illness, disability, impact of occupational and environmental factors on asthma, access to medical care, and asthma management.*

Source: www.healthypeople.gov

Appendix C

Utah Asthma Plan At-A-Glance

Education

Objective 1: knowledge, skills, and follow-up for all people with asthma

Strategies: care plans in schools, "Open Airways", school policies to carry inhalers, local asthma camps, asthma educators in health care offices, outreach to seniors

Objective 2: patient resources

Strategies: pharmacy information sheets, resource guide, list serv, health plans to disperse resources, brochures for health care settings

Objective 3: provider awareness of resources

Strategies: listserv. Asthma hotline, resource kits to patients, asthma education among health insurance groups, funding to local health departments and other agencies

Objective 4: education for providers

Strategies: CME opportunities for health care professionals, HMO/insurance

Objective 5: public awareness

Strategies: public awareness campaign, informational handouts, brochures and fact sheets, statewide spokesperson, workplace asthma screening, educate local community leaders and policymakers

Health Systems

Objective 1: access to health care and barriers to care

Strategies: review current systems, survey providers, increase collaboration, cross system collaborative approaches, explore opportunities to create or enhance care for uninsured/underinsured, check medication refill rates

Objective 2: innovative approaches for professional development

Strategies: interactions between health care providers, offer CME credits

Objective 3: model health care benefit packages

Strategies: survey of Utah payers, economic models, survey of health care professionals, educate payers and providers, access to the benefit package through state health insurance plans (Medicaid, CHIP, PCN, etc)

Objective 4: resources for under/uninsured

Strategies: educate health care purchasers, promote resources as a part of the public awareness campaign

Patient Issues

Objective 1: patient management skills to function at normal level

Strategies: identify measures for optimal outcomes, pulmonary function testing, factors that interfere with treatment and/or patient quality of life, provider awareness of and ability to identify the occupational, educational, and psychosocial factors, methods for assessing current knowledge and gaps in knowledge

Objective 2: patient transfer of knowledge into performance of behaviors

Strategies: self-management programs, school funding and structure to adopt coordinated asthma management, methods and guidelines to adopt long-term follow-up regimens within their practice

Objective 3: patient motivation

Strategies: urgent care center resources for transitioning patients to primary care services, contracts to health plans for patient management systems, home health care systems, mobile asthma care units, or the medical home project to improving monitoring and ensure the continuity of care and follow-up, web-based system for monitoring and communication

Objective 4: guide to resources for patients with complex or difficult-to-manage asthma

Strategies: physical and a web-based version of a resource guide, information campaign about resource guide

Objective 5: state laws and policies

Strategies: standardized forms for schools and parents, medical personnel advocacy education, medical professionals per pupil in the schools policy advocacy

Risk Factors

Objective 1: community cooperation in promoting indoor air risk factor awareness and reducing risks

Strategies: awareness about hygiene practices, funding for local health departments for community activities, awareness regarding water damage and restoration, programs with manufacturers to develop consumer education care and maintenance materials, schools training programs, indoor environmental air quality and sanitation regulations

Objective 2: outdoor air risk factor awareness to reduce those risks

Strategies: identify geographical and promote asthma awareness in these communities

Appendix C

Utah Asthma Plan At-A-Glance - continued

Risk Factors - continued

Objective 3: occupational health nurses and safety professional awareness of sensitizers and irritants in their industry

Strategies: Education professionals, work-site educational materials, information on new possible toxins, train Occupational Safety and Health professionals to conduct safety and hazard surveillance walk-through evaluations

Objective 4: information and resources to Occupational Safety and Health professionals to develop industry-specific surveillance and monitoring

Strategies: work-site protocols for reporting, work place climate for reporting, workplace databases for reporting and analyzing, use computer technology for report and analysis, training to identify when independent consultant is needed

Objective 5: recommendations for work-site management plans

Strategies: pre-screening, follow-up screenings, exposure plans, education and training on exposure plan, employee protection policy, work-site disease management, ventilation, encourage substitution of hazardous materials where possible, preventive vaccinations, educate and train on use of personal protective equipment

Objective 6: genetics as a predictor of asthma risk

Strategies: partner to explore family history of asthma patients to determine links between history and asthma, genetic data gathering in pilot groups

Data and Monitoring

Objective 1: identify data needs

Strategies: list of information needs, primary users, needs assessment, prioritize needs, evaluate needs assessment tool

Objective 2: quality of existing data sources

Strategies: assess quality of hospital, ED, and Medicaid utilization data, survey data, death certificate data, HMO performance measures

Objective 3: new data sources

Strategies: information existing data sources do not cover, pilot project to assess the previously unused data sources, asthma component to existing data collection systems, pilot project to create new data collection systems, efficiency and expandability of pilot projects

Objective 4: produce and disseminate data

Strategies: core tracking measures, audience for report dissemination, asthma report

Objective 5: develop infrastructure to support surveillance needs

Strategies: epidemiological/statistical/information technology capacity, capacity for production and dissemination of reports, input from surveillance workgroup and Utah Asthma Task Force

Objective 6: evaluate the implementation of Utah's Asthma Plan

Strategies: priority objectives of each workgroup, measurement strategies, communicate to workgroups, timeline, budget, and resources for plan evaluation, perform evaluation and report results

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